

**REMARKS**

The Examiner is thanked for the due consideration given the application.

Claims 1-9 and 20-26 are pending in the application. Acknowledgement of the allowability of claim 8 is noted with appreciation. Withdrawn claims 10-19 have been canceled without prejudice or disclaimer. The amendments to claim 1 find support in the specification at page 5, line 28 to page 6, line 1. Claims 20-26 are newly presented. Support for new claim 20 can be found in the specification at page 8, lines 13 and 14, page 10, lines 35-38 and in Figure 7. Support for new claim 21 can be found in the specification at page 12, lines 2-8. Support for new claims 22 can be found in the specification at page 6, line 38 to page 7, line 4. Support for new claims 23 can be found in the specification at page 7, lines 5-14. Support for new claims 24 can be found in the specification at page 7, lines 15-22. New claim 25 generally sets forth subject matter canceled from claim 1. Support for new claim 26 can be found in the specification at page 15, lines 25 to 26.

No new matter is believed to be added to the application by this amendment.

**Rejection Under 35 USC §112, Second Paragraph**

Claims 1-9 have been rejected under 35 USC §112, second paragraph as being indefinite. This rejection is respectfully traversed.

The Official Action that the term in claim 1 "at least two liquids considered to be immiscible" is unclear. However, this term has been removed from claim 1.

The Official Action asserts that phrase in claim 1 "vibrate by excitation of a mechanical, electrical or magnetic type" is unclear. However, this term in claim 1 has been replaced with " an excitation system (251) makes the porous body (24) vibrate by applying vibrations directly to said porous body (24)," which is clear.

The claims are thus clear, definite and have full antecedent basis.

This rejection is believed to be overcome, and withdrawal thereof is respectfully requested.

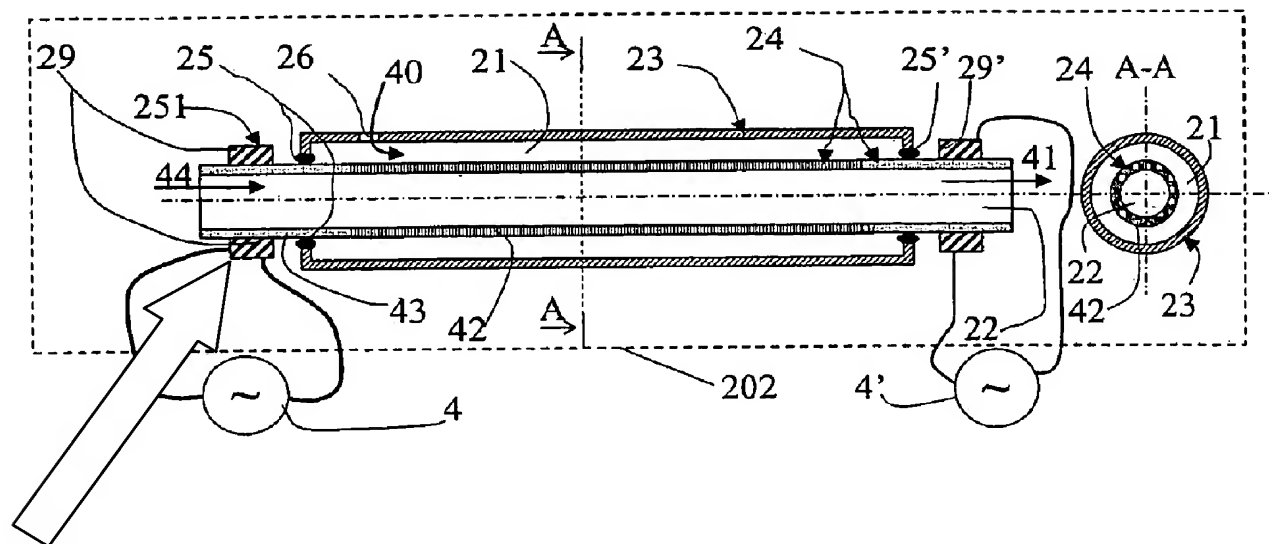
**Rejection Over NAKASHIMA et al.**

Claims 1-7 and 9 have been rejected under 35 USC §102(b) as being anticipated by or, alternatively, under 35 USC §103(a) as being unpatentable over NAKASHIMA et al. (U.S. Patent 5,326,484). This rejection is respectfully traversed.

The present invention pertains to a method for method for making an emulsion (41) from at least a dispersed phase (40) and a dispersing phase (44) that includes forcing the dispersed phase (40) through a porous body (24) into the dispersing phase (44). In the present invention, an excitation system (251) makes the porous body (24) vibrate by applying vibrations directly to said porous body (24). This direct excitation can be seen, by

way of example, in Figure 3 of the application, which is reproduced below.

Fig. 3

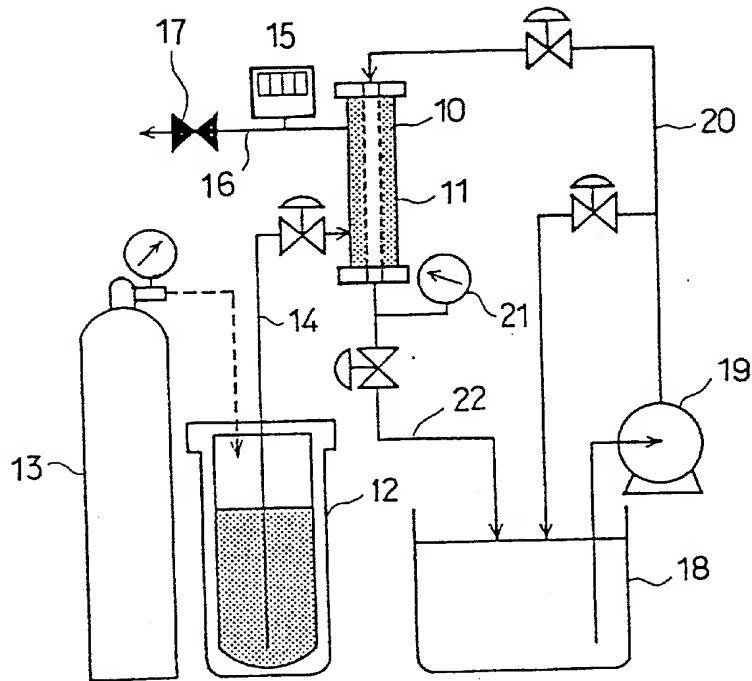


*Vibrations Applied Directly*

NAKASHIMA et al. pertain to monodisperse single and double emulsions. Nakashima et al. describe a method of producing an o/w type emulsion which comprises introducing under pressure a dispersed phase-forming oily liquid into an aqueous continuous phase liquid containing a cationic surfactant through a hydrophilic porous glass membrane positively or negatively charged by surface treatment (claim 1 and 2).

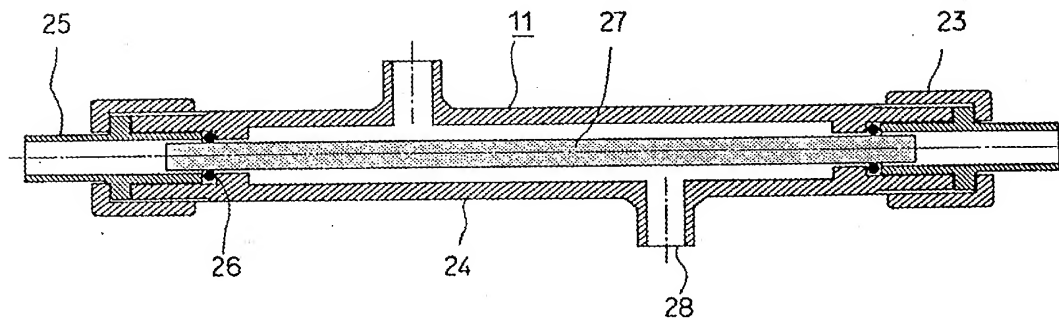
The Official Action refers to Figures 4 and 5 of NAKASHIMA et al. Figure 4 of NAKASHIMA et al. is reproduced below.

FIG. 4



The features in Figure 4 of NAKASHIMA et al. include a porous glass membrane 10 in module 11. Another view of the module 11 is in Figure 5 of NAKASHIMA et al., which is reproduced below.

FIG. 5



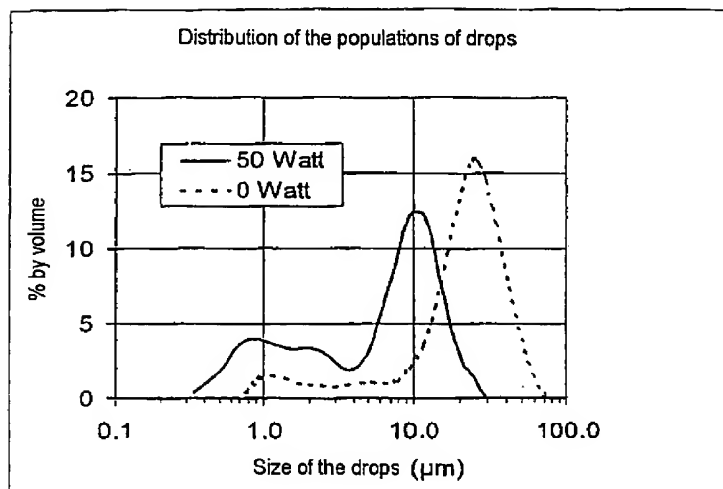
In Figure 5 of NAKASHIMA et al. a porous glass membrane 27 is held in place by o-rings 26.

NAKASHIMA et al. fail to disclose or infer an excitation system (251), which **makes** the porous body vibrate by **applying vibrations directly** to the porous body, such as is set forth in claim 1 of the present invention.

Indeed, NAKASHIMA et al. only describe that a dispersed phase is introduced under pressure into a continuous liquid phase through a porous glass membrane. Nowhere, is it mentioned that this glass membrane vibrate by an excitation system by applying vibrations directly to the porous body.

In contrast, as is described in the example in the specification (page 14, line 9, to page 15, line 28 and Figure 10, vibrations applied directly to the porous body by an excitation system allow reduction of the coalescence phenomenon and the particles size. "A high population proportion with a large size is observed in the case when no vibration is applied (more than 15% by volume), which seems to be due to the coalescence phenomenon. Furthermore, a significant reduction of this proportion is observed (about 12% by volume) with the use of vibrations. The use of vibrations thus seems to inhibit coalescence." (page 15, lines 8-14 of the specification and Figure 10, below).

Fig. 10



Yet, the smaller the size of the droplets is, the more homogeneous the emulsion becomes, and in the case in which the dispersed phase is the carrier of an active principle, the smaller drops will better distribute the active principle.

In addition, the applied vibrations facilitate formation and detachment of the drops. They facilitate also the flow of dispersed phase through the porous body (24), because differences of 10% were observed during the tests.

All these effects, i.e., unexpected results, (due to vibrations applied directly to the porous body) cannot be inferred from NAKASHIMA et al.

Therefore, NAKASHIMA et al. fail to teach each and every element of claim 1 of the present invention. Nakashima et al. thus fail to anticipate claim 1 of the present invention. Alternatively, one of ordinary skill and creativity would fail to produce claim 1 of the present invention from a knowledge of

NAKASHIMA et al., and a *prima facie* case of unpatentability has thus not been made.

Claims depending upon claim 1 are patentable over NAKASHIMA et al. for at least the above reasons.

This rejection is believed to be overcome, and withdrawal thereof is respectfully requested.

**Statement of Substance of Interview**

The Examiner is thanked for graciously conducting a telephonic interview with the applicant's representative on December 2, 2008. During the interview claim language was discussed, along with the possibility of rejoinder. At the end of the interview the Examiner prepared an interview summary. The interview summary has been reviewed, and it appears to accurately reflect the substance of the interview.

**Conclusion**

The Examiner is thanked for considering the Information Disclosure Statement filed April 13, 2005 and for making an initialed PTO-1449 Form of record in the Official Action.

Prior art of record but not utilized is believed to be non-pertinent to the instant claims.

As no issues remain, the issuance of a Notice of Allowability is respectfully solicited

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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